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EXAMINER

WOZNIAK, JAMES S

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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/933,956	Applicant(s) SARUKKAI, RAMESH R.	
	Examiner JAMES S. WOZNAK	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 10/24/2008, the applicant has submitted an amendment, filed 2/24/2009, amending independent claims 34, 35, 38, and 41-42, while arguing to traverse the art rejection based on the limitation regarding a text string having occurrences in multiple prompt classes and a one-to-one association between each of the occurrences and a corresponding audio segment identifier (*Amendment, Pages 8-10*). Applicant's arguments have been fully considered, however they are moot with respect to the new ground of rejection further in view of Malsheen et al (*U.S. Patent: 5,634,084*), which more clearly anticipates the applicant's claimed invention.

2. In response to amended claims 34, 35, and 39 (*Amendment, Pages 6-7*), the examiner has withdrawn the previous objection directed towards minor informalities.

3. In response to amended claims 38 and 41, the examiner has withdrawn the previous 35 U.S.C. 112, second paragraph rejection directed to indefinite claim language.

4. In response to the previous 35 U.S.C. 101 rejection directed towards claims 35-37, the applicant has argued that claim 35 now includes a step for rendering audio data, which is a transformation that generates a tangible result (*Amendment, Pages 7-8*). These arguments have

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been fully considered, but are not convincing. Under the most recent 35 U.S.C. 101 guidance, a statutory claim either requires some type of *physical* transformation or being "tied to" another statutory class (*i.e., being tied-to a machine, requiring a machine*). The applicant argues that their "rendering the audio segment as audio" is a transformation, however, the examiner notes that this transformation is only a conversion of data from one data form to another transient format. This "transformation" is not of a physical nature only an abstract-data format conversion, thus, it does not qualify the claim as being statutory. Thus, the previous 35 U.S.C. 101 rejection has been maintained. Also, under the most recent guidance, claim 34 is directed to non-statutory subject matter. Corresponding 35 U.S.C. 101 rejections have been set forth below.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 34-37** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Although **claim(s) 34** appear to fall within a statutory category (*i.e., apparatus*), claim(s) 34 encompass nothing more than logic/software modules as per the specification ("*software program, software object...software instance...code fragment*", Page 9; also, the recited *database of this claim is merely a data structure that does not require any type of physical hardware*). Thus, claim(s) 34 are directed to non-statutory subject matter because their scope includes a computer program embodiment, an abstract data structure which does not fall within

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one of the four statutory categories (*i.e., it is directed to a program per se*). See also MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim(s) 35 is/are rejected under 35 USC 101 as not falling within one of the four statutory categories of invention. While the claim(s) recite a series of steps or acts to be performed, a statutory "process" under 35 USC 101 must (1) be tied to another statutory category (such as a manufacture or a machine), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claim(s) neither transform underlying subject matter (*i.e., the generation of audio is merely a conversion of abstract data into another*

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transient format, which is not a physical transformation) nor positively recite structure associated with another statutory category (i.e., the body of the claims does not require physical hardware and does not exclude a human being from being capable of executing the claimed method. For example, a human could look identify a prompt class in a list that corresponds to a prompt in a text format in a markup language printout, find the most appropriate text string to read out from another data list corresponding to the text prompt in the markup language based on the selected class, and read aloud the identified prompt. Additionally, the specification seems to support a human-implemented method (“user operation”, Specification, Page 9). Lastly, although the preamble of claim 35 recites a “computer-implemented” method, this computer is not relied upon in the body of the claims, and thus, is not given patentable weight) and therefore do not define a statutory process. Dependent claims 36-37 fail to overcome this rejection, and thus, is also rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 34-35, 37-38, and 40-43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladd et al (*U.S. Patent: 6,269,336*) in view of Malsheen et al (*U.S. Patent: 5,634,084*).

With respect to **Claim 34**, Ladd discloses:

A database referencing a plurality of audio segments, each audio segment of the plurality associated with an identifier that uniquely identifies that audio segment (*TTS audio file database, each audio file having a unique identifier, Col. 10, Line 58- Col. 11, Line 11; Col. 18, Lines 33-44, and Col. 29, Lines 36-57*);

A prompt mapping configuration comprising a plurality of prompt classes, text strings, and a one-to-one association between each text string and a corresponding audio segment identifier (*mapping of prompts for various classes and text strings, wherein there is a one-to-one association between the audio prompt files and the text strings, Col. 18, Lines 33-44; Col. 29, Lines 36-57*);

A prompt audio object is configured to use the contextual information from the voice browser to determine a prompt class to match a text string from the document received by the voice browser to an audio file (*browser context or state is utilized in determining which prompt, corresponding to a text string, is to be played, Col. 10, Lines 13-21; Col. 16, Lines 41-57; Col. 18, Lines 12-32; Col. 18, Lines 33-44; and Col. 29, Lines 36-57*), wherein the match, through the association of text string occurrences to audio segment identifiers results in identification of an audio segment identifier associated with the text string occurrence, and to cause rendering of an audio segment, referenced in the database, that is identified by the audio segment identifier (*generating specific audio prompts based on XML mapping and user voice browser inputs, Col. 10, Line 58- Col. 11, Line 11; Col. 17, Line 61- Col. 18, Line 44; Col. 37, Line 8- Col. 40, Line 24; Col. 29, Lines 36-57*).

Although Ladd teaches a voice browser system that is capable of generating an audio prompt based on a voice browser user input context for a plurality of the contexts (*Col. 2, Lines 48-58; and Col. 18, Lines 56-65*) and utilizes a prompt mapping configuration, Ladd does not explicitly teach a prompt mapping configuration having a plurality of occurrences of the same text strings, wherein each of the occurrences of each text string are associated with a prompt class and corresponding audio segment identifier (*i.e., one-to-one association*), which is different from the other occurrences of that text string and a matching processes to identify an audio segment identifier matching the string occurrence within a prompt class. Malsheen, however, discloses such a mapping configuration. First, Malsheen discloses a speech output abbreviations translation table (*Fig. 1, Element 146*). This table features a plurality of speech prompt classes (*type classification, Col. 7, Lines 4-16; Abstract; and "Qual" in Table 1*). This table maps a single instance of a text string to multiple possible occurrences/expansions in each of the different classes (*see examples in Col. 9, Lines 30-60; Col. 10, Lines 25-62; and Table 1*). Each possible expansion occurrence in turn maps to a particular audio signal to be generated at a text-to-speech converter (*Col. 4, Lines 6-16; and Col. 12, Line 30-39*).

With response to the claimed prompt audio object means/step, Malsheen teaches that a text in a document is processed to generate a classification based on a neighboring context (*Abstract; Col. 3, Lines 6-16; Col. 9, Lines 25-60; and Col. 10, Lines 25-62*). Malsheen's invention also tries to identify a matching expansion occurrence within the classification category to further determine a corresponding audio output to be generated via speech synthesis (*Abstract, Col. 3, Lines 6-16, Col. 4, Lines 6-16; Col. 9, Lines 25-60, and Col. 10, Lines 25-62*).

Ladd and Malsheen are analogous art because they are from a similar field of endeavor in speech synthesis. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Ladd with the classification-based speech synthesis taught by Malsheen in order to provide the proper human pronunciation of words that would not be properly spoken by a convention text-to-speech converter (*Malsheen, Col. 2, Lines 53-60*).

Claim 35 recites a method performed by the system recited in claim 34, which is taught above by the combination of Ladd and Malsheen, and as such, is rejected under similar rationale.

With respect to **Claim 37**, Ladd further discloses:

The association of audio segment identifiers with the reference text strings is specified in a markup language (*prompt is associated with an identifier in VoiceHTML, Col. 18, Lines 33-44; and Col. 29, Lines 36-57*).

Claim 38 contains subject matter similar in scope to claim 35, and thus, is rejected under similar rationale. Also, Ladd discloses method implementation as a program stored on a computer readable medium (*Col. 6, Line 65- Col. 7, Line 17*).

Claim 40 contains subject matter similar in scope to claim 37, and thus, is rejected under similar rationale.

Claim 41 contains subject matter similar in scope to claim 38, and thus, is rejected under similar rationale. Also, Ladd additionally teaches various browser contexts (*Col. 2, Lines 48-58; Col. 18, Lines 12-65*), while Malsheen discloses the multiple prompt classes (*Table 1, "Qual"*).

Claim 42 contains subject matter similar in scope to claims 34 and 38, and thus, is rejected under similar rationale. Also, Ladd additionally teaches method implementation using a

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computer processor (*Col. 6, Line 65- Col. 7, Line 17*) that would inherently require some type of instruction memory to enable instruction storage.

With respect to **Claim 43**, Ladd further discloses a VoiceHTML document (*Col. 18, Lines 33-44; and Col. 29, Lines 36-5; Col. 12, Lines 25-27*).

9. **Claims 36 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladd et al in view of Malsheen et al and further in view of Saylor et al (*U.S. Patent: 6,501,832*).

With respect to **Claim 36**, Ladd in view of Malsheen discloses the method for context-based audio prompts in a voice browser, as applied to Claim 35. Ladd in view of Malsheen does not specifically suggest additionally selecting an audio advertisement to render based on contextual information, however, Saylor discloses voice advertisement elements indexed to a particular pertinent voice page context (*Col. 14, Lines 46-62; Col. 18, Lines 46-65; Col. 27, Lines 33-56; Col. 36, Line 48- Col. 37, Line 3; and example of indexed voice ad, Col. 38, Line 33- Col. 39, Line 12*).

Ladd, Malsheen, and Saylor are analogous art because they are from a similar field of endeavor in speech synthesis systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Ladd in view of Malsheen with the voice ads taught by Saylor in order to provide a means for revenue generation for voice page providers (*Saylor, Col. 7, Lines 19-24*).

Claim 39 contains subject matter similar to claim 36, and thus, is rejected under similar rationale.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kalyanswamy et al (*U.S. Patent: 5,761,640*)- teaches a speech synthesizer that determines a class to search for a possible expansion to be rendered as audio (*Col. 3, Line 23- Col. 4, Line 31*).

Huang et al (*U.S. Patent: 5,913,193*)- teaches analyzing the context in which abbreviated words and acronyms are used for speech synthesis (*Col. 7, Line 53- Col. 8, Line 12*).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached at (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Primary Examiner, Art Unit 2626